coefficients having a zig-zag index greater than or equal to a preset number in each high-activity block wherein the total absolute quantized level in select transform coefficients is less than a preset fraction of the total absolute quantized level in all of the transform coefficients in that block.

3. (Previously Presented) A method as recited in claim 1, wherein the adjusting of the quantizer step sizes comprises setting the quantizer step size for a particular type of frame to the average value used over the last frame of the same type, and adjusting the quantizer step size for the current frame of that type by comparing a partial bit-rate for that frame with a bit-rate range.

4. (Original) A method as recited in claim 1, further comprising maintaining a count of the actual bits used per frame, and, if the accumulated bit count exceeds a bit budget for a typical inter-coded frame, skipping the encoding of the next inter-coded frame.

5. (Currently Amended) A codec, comprising:

an encoder that includes a first plurality of variable parameters including x-search window, y-search window, skip mode protection, half-pel subsample factor, full-pel subsample factor, use half-pel, transform truncation, and motion estimation method for specifying a plurality of different settings at which a coding algorithm applied to uncoded video data can operate, each coding algorithm setting being defined by a specific combination of settings of the first plurality of variable parameters; and

a decoder that includes a second plurality of variable parameters including transform algorithm, chroma skipping, and frame display skipping for specifying a plurality of different settings at which a decoding algorithm applied to coded video data can operate, each decoding algorithm setting being defined by a specific combination of settings of the second plurality of variable parameters;

wherein the codec is configured such that, during operation, at least one of the coding algorithm and decoding algorithm is able to dynamically change its operating setting by dynamically changing at least one of the first or second plurality of variable parameters according to available algorithm processing resources in response to actual complexity measurements performed at run-time.

6. (Original) A codec as recited in claim 5, wherein the plurality of different settings at which the coding algorithm can operate is 9.

7. (Original) A codec as recited in claim 5, wherein the plurality of different settings at which the decoding algorithm can operate is 5.

8. (Currently Amended) An encoder, comprising:

a plurality of variable parameters including x-search window, y-search window, skip mode protection, half-pel subsample factor, full-pel subsample factor, use half-pel, transform truncation, and motion estimation method for specifying a plurality of different settings at which a coding algorithm applied to uncoded video data can operate, each coding algorithm setting being defined by a specific combination of settings of the plurality of variable parameters;

wherein the encoder is configured such that, during operation, its coding algorithm is able to dynamically change its operating setting by dynamically changing at least one of the plurality of variable parameters according to available algorithm processing resources in response to actual complexity measurements performed at run-time.

9. (Currently Amended) A decoder, comprising:

a decoder that includes a plurality of variable parameters including DCT algorithm, chroma skipping, and frame display skipping for specifying a plurality of different settings at which a decoding algorithm applied to coded video data can operate, each decoding algorithm setting being defined by a specific combination of settings of the plurality of variable parameters;

wherein the decoder is configured such that, during operation, its decoding algorithm is able to dynamically change its operating setting by dynamically changing at least one of the plurality of variable parameters according to available algorithm processing resources in response to actual complexity measurements performed at run-time.

10 – 15. (Canceled)

16. (Currently Amended) A machine-readable medium embodying a program of instructions for directing a codec to adapt the number of encoded bits produced by the codec to a system target bit-rate, the program of instructions comprising:

(a) instructions for determining if the system target bit-rate is such that bits-per-macroblock is less than a predetermined number;

(b) instructions for setting the frequency at which intra-coded frames are sent to a first predetermined frequency range;

(c) instructions for allocating bits between intra-coded frames and inter-coded frames according to a first predetermined factor;

(d) instructions for controlling quantizer step sizes for the intra-coded and inter-coded frames;

(e) instructions for setting the frequency at which intra-coded frames are sent to a second predetermined frequency range that is lower than the first predetermined frequency range, unless ~~there is~~a motion vector is found in each of more than a predetermined percentage of the macroblocks, in which case the sending frequency of the intra-coded frames is set to the first predetermined frequency range; and

(f) instructions for setting to zero transform coefficients having a zig-zag index greater than or equal to a preset number in ~~select~~ luminance intra-coded frame transform coefficient blocks having a DC transform coefficient whose value exceeds a fixed predetermined number.

wherein instructions (b), (c) and (d) are executed only if it is determined that the system target bit-rate is such that bits-per-macroblock is not less than a predetermined number, and

wherein instructions (e) and (f) are executed only if it is determined that the system target bit-rate is such that bits-per-macroblock is less than a predetermined number.

17. (Currently Amended) A machine-readable medium as recited in claim 16, ~~wherein the select intra-coded frame transform coefficient blocks include (i) each luminance block with a DC transform coefficient whose value exceeds a predetermined number and (ii)~~further comprising setting to zero transform coefficients having a zig-zag index greater than or equal to a preset number in each high-activity block wherein the total absolute quantized level in select transform coefficients is less than a preset fraction of the total absolute quantized level in all of the transform coefficients in that block.

18. (Original) A machine-readable medium as recited in claim 16, wherein instruction (d) comprises setting the quantizer step size for a particular type of

frame to the average value used over the last frame of the same type, and adjusting the quantizer step size for the current frame of that type by comparing a partial bit-rate for that frame with a bit-rate range.

19. (Original) A machine-readable medium as recited in claim 16, further comprising:

(g) instructions for maintaining a count of the actual bits used per frame, and, if the accumulated bit count exceeds a bit budget for a typical inter-coded frame, skipping the encoding of the next inter-coded frame.